

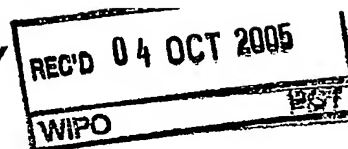
# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)




Applicant's or agent's file reference DC419.IP04.018	<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. PCT/GB2004/002609	International filing date (day/month/year) 17.06.2004	Priority date (day/month/year) 25.06.2003	
International Patent Classification (IPC) or national classification and IPC B65D77/06, B65D77/22			
Applicant STEPHENSON, John			

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 9 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☒ sent to the applicant and to the International Bureau a total of 4 sheets, as follows:
    - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. 1 and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand  25.04.2005	Date of completion of this report  06.10.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Pernice, C  Telephone No. +31 70 340-3084



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2004/002609

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-23 as originally filed

**Claims, Numbers**

1-27 received on 27.04.2005 with letter of 25.04.2005

**Drawings, Sheets**

1/15-15/15 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☒ the claims, Nos. 25, 26, 28
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
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PCT/GB2004/002609

**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 12

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the said claims Nos. 12

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

**INTERNATIONAL PRELIMINARY REPORT  
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International application No.  
PCT/GB2004/002609

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	5, 18, 19, 23, 24, 27
	No: Claims	1, 2, 6-11, 13-17, 20-22
Inventive step (IS)	Yes: Claims	5, 18, 19, 23, 24, 27
	No: Claims	1-4, 6-11, 13-17, 20-22
Industrial applicability (IA)	Yes: Claims	1-11, 13-24, 27
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.

PCT/GB2004/002609

**Re Item I.**

Claims 25, 26 and 28 contain material which goes beyond the originally filed application, namely a spillage tray, a closed tray, and the use with standard rigid-walled container handling and fill equipment. These features are not disclosed in the application documents as originally filed.

**Re Item V.**

1 The following documents are referred to in this communication:

D1 : US 3 599 840 A (SPEAS CHARLES A) 17 August 1971 (1971-08-17)  
D2 : FR 2 483 893 A (GIEPAC BOURGOGNE SA) 11 December 1981 (1981-12-11)  
D3 : GB-A-1 207 421 (POLYTHENE DRUMS LTD) 30 September 1970 (1970-09-30)

**2 INDEPENDENT CLAIM 1**

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parenthesis applying to this document):

A bag-in-box container with an inner bag liner (10) locatable within an outer box carton (19) having a neck piece (16) between a bag neck (14) and a carton aperture (26).

**3 INDEPENDENT CLAIM 13**

3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 13 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parenthesis applying to this document):

A bag-in-box container package comprising a bag inner liner (10) and a box carton outer shell

(19); with a bag neck location and support element (16) configured as a discrete insert.

**4 INDEPENDENT CLAIM 14**

- 4.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 14 is not new in the sense of Article 33(2) PCT.  
Document D1 discloses (the references in parenthesis applying to this document):

A pre-formed, neck piece (17) for a container as in claim 1.

**5 INDEPENDENT CLAIM 15**

- 5.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 15 is not new in the sense of Article 33(2) PCT.  
Document D1, see figure 7, discloses (the references in parenthesis applying to this document):

A container comprising an outer box (19) or carton with an edge recessed panel and an internal bag liner (10) located and retained within the carton by a neck support collar (16) such that a protruding neck (14) is inset within the recess.

**6 INDEPENDENT CLAIM 16**

- 6.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 16 is not new in the sense of Article 33(2) PCT.  
Document D2 discloses (the references in parenthesis applying to this document):

A bag-in-box carton, with box or carton outer wrap (12,18), sleeve or case and bag inner liner element (1) mutually juxtaposed and entrained preparatory to bag contents fill.

**7 INDEPENDENT CLAIM 20**

- 7.1 The present application does not meet the criteria of Article 33(1) PCT, because the

subject-matter of claim 20 is not new in the sense of Article 33(2) PCT.  
Document D1 discloses (the references in parenthesis applying to this document):

A location and/or retention element (16) for juxtaposition or interposition between bag liner (10) and outer box (19).

**8 INDEPENDENT CLAIM 21**

8.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 21 is not new in the sense of Article 33(2) PCT.  
Document D1 discloses (the references in parenthesis applying to this document):

A bag-in-box carton (19) with a location element (16) captive to a bag neck (14) and entrained by a neck rim.

**9 INDEPENDENT CLAIM 22**

9.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 22 is not new in the sense of Article 33(2) PCT.  
Document D1 discloses (the references in parenthesis applying to this document):

A bag-in-box assembly of juxtaposed bag inner (10) and box outer (19) elements mutually entrained by an intermediate element (16).

**10 INDEPENDENT CLAIM 23**

The document D3 is regarded as being the closest prior art to the subject-matter of claim 23, and shows (the references in parentheses applying to this document):

A bag-in-box carton container, with a carton panel profile and panel aperture (31,32,33) to accommodate a discrete neck piece (28) or collar to sit within the outer carton profile, to accommodate and retain a bag neck (45) protruding into the panel aperture for ease of neck access in contents fill and discharge and closure cap installation and removal yet inset within a rectilinear, overall carton form.

The subject-matter of claim 23 differs from this known bag-in-box in that the discrete neck piece is configured as a shallow tray.

The problem to be solved by the present invention may be regarded as forming a spillage barrier over the underlying carton portion and sealing the underneath of the panel aperture with a single discrete piece.

The solution to this problem proposed in claim 23 of the present application is considered as involving an inventive step (Article 33(3) PCT) since it is neither known from, nor rendered obvious by, the available prior art.

**11 DEPENDENT CLAIMS 24,27**

Claims 24, 27 are dependent on claim 23 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**12 DEPENDENT CLAIMS 2, 6-11, 17**

Dependent claims 2, 6-11, 17 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and inventive step (Article 33(2) and (3) PCT).

**13 DEPENDENT CLAIMS 3, 4**

Dependent claims 3, 4 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(2) and (3) PCT).

**14 DEPENDENT CLAIMS 5, 18, 19**

The combination of the features of dependent claims 5, 18, 19 are neither known from, nor rendered obvious by, the available prior art.



**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.

PCT/GB2004/002609

International (PCT) Patent Application No: PCT/GB2004/002609  
{ex GB 0314815.2}  
'Bag In Box'  
John Stephenson  
Our ref: DC419.IP04.018

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**Claim Amendment**

25 April 2005

Claims 1 through 22 as originally filed retained + repeated for reference;  
Supplementary Claims 23 through 28 entered:

1.  
10 A Bag In Box (BIB) container [package] (10)  
- for flowable materials,  
including liquid, solid powders or particles -  
with an inner (contents) bag liner (12)  
locatable within an outer box carton (11)  
15 has a neck piece (14),  
between a bag neck (13) and carton aperture (24).
2.  
A container package, as in Claim 1,  
with a carton lid flap  
20 incorporating cuts, creases or folds  
to allow folding as an inset ledge or recessed shelf,  
with a cut-out or aperture for a bag neck,  
and a neck piece configured as a shallow tray,  
to sit within the shelf recess,  
25 to accommodate a protruding bag neck  
within a uniform, say rectangular, overall carton form.
3.  
A container package, as in either preceding claim,  
with a retractable (fold-out) pourer spout.
- 30 4.  
A container package, as in any preceding claim,  
with a retractable (fold-out) handle.
5.  
35 A container package, as in any preceding claim,  
with a lockable closure.
6.  
A container package, as in any preceding claim,  
with discrete neck piece insert.
7.  
40 A container package, as in any preceding claim,  
with neck piece (part) integrated with box carton.

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(54)

8.  
A container package, as in any preceding claim,  
with neck piece (part) integrated with bag liner insert.

5 9.  
A container package, as in any preceding claim,  
with a frangible tamper-evident seal,  
about a removable closure.

10 10.  
A container package, as in any preceding claim,  
with a box carton of moisture resistant material,  
such as a sealed or coated board,  
or synthetic plastics.

15 11.  
A container package, as in any preceding claim,  
with a reinforced box carton material,  
such as laminated, corrugated or fibre stranded.

20 12.  
A container package,  
substantially as hereinbefore described,  
with reference to, and as shown in,  
the accompanying drawings.

25 13.  
A BIB container package,  
- for liquid or flowable material (contents) -  
comprising a bag inner liner  
and a box carton outer (shell);  
with a bag (neck) location and support element,  
configured as any one, or a combination of:

- discrete insert,
- 30 • element integral with the bag,  
or some part of the bag,  
such as the bag neck or neck rim,
- element integrated with the carton,  
or some part of the carton,  
35 such as an end flap;

to create a (shallow) recess for a protruding bag neck.

14.  
A pre-formed, neck piece for a container,  
as claimed in any preceding claims.

- 5 15.  
A container comprising  
an outer box or carton  
with an edge recessed panel  
and an internal bag liner  
located and retained within the carton  
by a neck support collar  
such that a protruding bag neck  
is inset within the recess.
- 10 16.  
A BIB carton,  
with box or carton outer wrap, sleeve or case  
and bag inner liner element  
mutually juxtaposed and entrained  
15 preparatory to bag contents fill.
17.  
A BIB carton of Claim 16  
with a pre-fabricated handle.
- 20 18.  
A BIB carton of Claim 16  
with integrated neck collar and handle moulding.
19.  
A BIB carton of Claim 16  
with integral moulded collar and bag neck.
- 25 20.  
A location and/or retention element  
for juxtaposition or interposition between  
bag liner and outer box or carton.
- 30 21.  
A BIB carton  
with a location and/or retention element of Claim 20  
captive to a bag neck and entrained by a neck rim.
- 35 22.  
A BIB assembly of juxtaposed  
bag inner and box outer elements  
mutually entrained by an intermediate element.

Supplementary claims ...

23.  
A Bag In Box (BIB) carton container,  
with a carton panel profile and panel aperture  
to accommodate a discrete neck piece or collar  
configured as a shallow tray,  
to sit within the outer carton profile,  
to accommodate and retain a bag neck  
protruding into the tray  
for ease of neck access in contents fill and discharge  
and closure cap installation and removal  
yet inset within a rectilinear, say rectangular, overall carton form
24.  
A container of Claim 23,  
with a neck piece configured as a local spillage barrier  
over an underlying carton wall portion  
upon contents fill and discharge.
25.  
A container of Claim 23,  
with a spillage tray  
open along an exposed edge  
at a carton side  
to allow spillage egress.
26.  
A container of Claim 23,  
with a closed tray  
for spillage containment  
around a neck spout  
inset from carton top bounding edges.
27.  
A container of Claim 23  
with depending tray edge flanges  
to wrap around and locate upon carton edges  
bounding a carton panel aperture  
to inhibit neck or collar rotation.
28.  
A container of Claim 23,  
configured for use with standard  
rigid-walled container handling and fill equipment  
to allow fill-line substitution or interchange  
with BIB cartons.